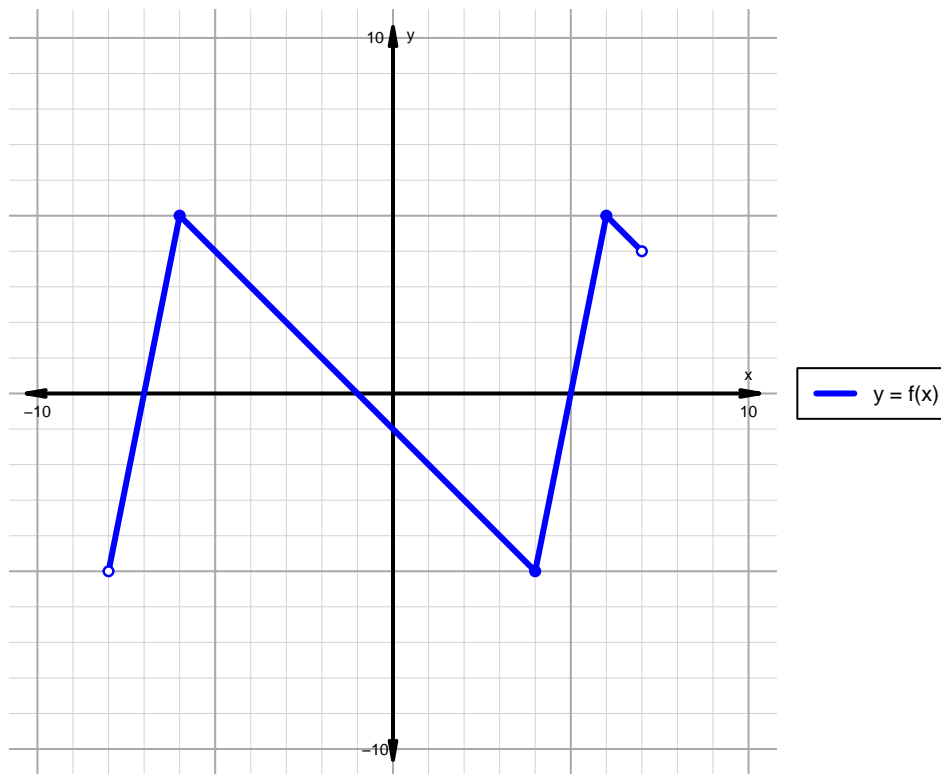# Intervals, Transformations, and Slope Practice (version 36)

1. The function f is graphed below.

Indicate the following intervals using interval notation. Remember, you can use $\cup$ between two intervals to indicate the union. Except for range, all intervals will indicate x values; this is standard.

Feature	Where
Positive	
Negative	
Increasing	
Decreasing	
Domain	
Range	

Intervals, Transformations, and Slope Practice (version 36)

2. In the four graphs below, $y = f(x)$ is graphed as a dotted line. Please add the indicated transformed graphs indicated by the equations below using a solid line.

$$y = f(x) - 2$$

$$y = f(x + 2)$$

$$y = f(-2 \cdot x)$$

$$y = 2 \cdot f(x)$$
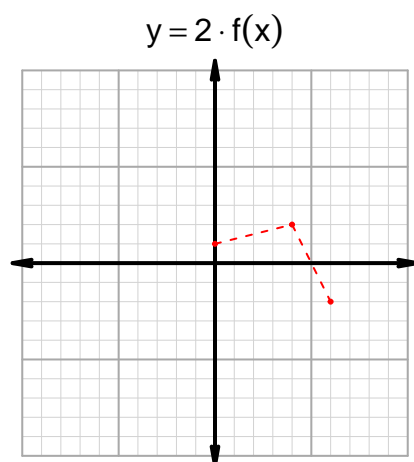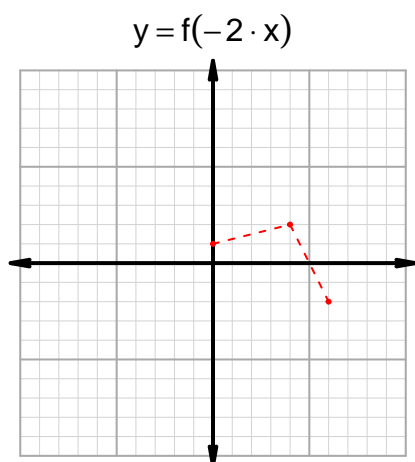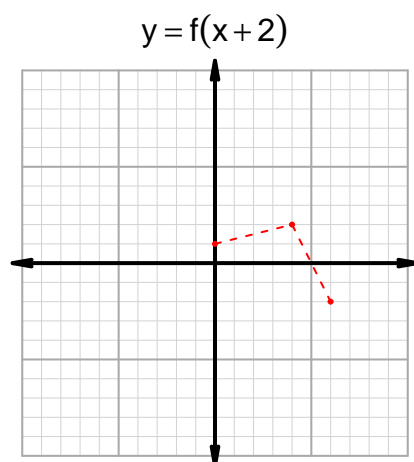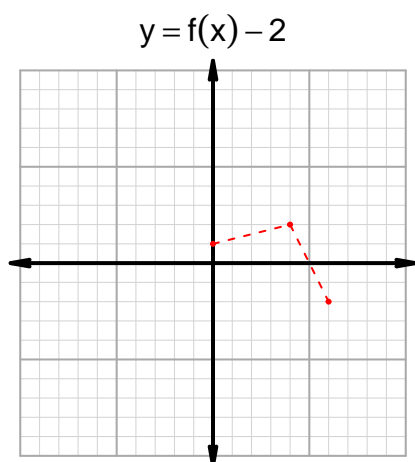
3. Let function g be defined by the table below. Use the formula $\frac{g(x_2) - g(x_1)}{x_2 - x_1}$ to find the average rate of change between $x_1 = 29$ and $x_2 = 53$. Express your answer as a reduced fraction.

x	$g(x)$
29	49
49	53
53	81
81	29